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November 20, 2002

VIA ELECTRONIC COMMENT FILING SYSTEM

Ms. Marlene H. Dortch  
Secretary  
Federal Communications Commission  
445 12th Street, S.W.  
Washington, D.C. 20554

**Re: EX PARTE - Review of Part 15 and other Parts of the Commission's Rules**  
**ET Docket No. 01-278**

Dear Ms. Dortch:

On Tuesday, November 19, 2002, Steven J. Winick, Chief Technology Officer for Security and Fire Solutions at Honeywell International, Inc. (parent company of The ADEMCO Group), Edwin N. Lavergne from Shook, Hardy & Bacon, L.L.P. and the undersigned met with Julius P. Knapp and Hugh L. Van Tuyl from the Office of Engineering and Technology on the above-referenced proceeding. Specifically, ADEMCO expressed its concern over the National Telecommunications and Information Administration's (NTIA) lack of support for the Commission's proposal to remove the prohibition on data transmissions by remote control devices operating above 70 MHz. In that regard, ADEMCO suggested ways in which the FCC can address NTIA's concerns while ensuring that the public can realize the benefits of the proposed rule as expeditiously as possible.

As permitted by Section 1.49(f)(1), this *ex parte* submission, and the associated attachments, are being filed in electronic format. Please contact the undersigned if there are any questions in connection with this matter.

Sincerely,



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Enclosures

cc: Julius P. Knapp (by hand delivery)  
Hugh L. Van Tuyl (by hand delivery)

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**THE ADEMCO GROUP  
MEETING WITH THE FCC  
NOVEMBER 19, 2002**

- A. **Purpose.** The purpose of this meeting is to discuss the Commission's proposal to remove the prohibition on data transmissions for devices operating pursuant to Section 15.231(a). ADEMCO, a division of Honeywell International, Inc., is a major manufacturer of electronic security systems and is a pioneer in the application of radio technology to the security industry. ADEMCO's goal is the rapid resolution of concerns recently raised by NTIA so that the benefits of new products currently under development can be realized by the public.
- B. **NTIA's Concerns.** On November 13, 2002, ADEMCO's legal counsel met with Fred Wentland and Mike Doolan at NTIA to gain a better understanding of NTIA's concerns with respect to the FCC's proposal, as outlined in a letter to the FCC dated October 15, 2002. It appears that NTIA is concerned with two aspects of the proposed rule change: (1) its wide applicability to all frequencies above 70 MHz, and (2) its elimination of any explicit prohibition on continuous transmission. As discussed below, ADEMCO believes that NTIA's concerns are adequately addressed in the proposed rules. Moreover, if changes to the proposed rules are necessary to address NTIA's concerns, ADEMCO believes there are ways to find an approach that is satisfactory to both the government and industry.
- C. In the NPRM, the FCC found the prohibition on data transmissions to be constraining and an impediment to the development of new technology (NPRM ¶ 17). The FCC concluded that the existing limits on field strength and duration of transmissions are sufficient to prevent harmful interference (*Id.*).
- D. In its Comments, ADEMCO supported the FCC's proposal to remove the prohibition on data transmissions by remote control devices operating above 70 MHz (see attached Comments). The FCC's proposed rule would lift the artificial distinction between "control versus data" that is already being eroded in practice. The removal of this distinction would not increase interference because it is only about content, not timing or signal strength.
1. With only minimal additional data content, a new range of products will enable the design of improved home and business control systems, such as security, fire protection, heating and air conditioning controls.

2. Such products could feature comprehensive wireless displays and advanced user interfaces, better control capability, and improvements in the installation process.
  3. ADEMCO and other manufacturers would be able to provide a higher level of security and improved reliability to residential and business premises.
- E. In addition, in its Reply Comments, ADEMCO supported several proposals advanced in various comments:
1. Increase the permitted periodic transmission time from 1 to 2 seconds per hour (see attached Reply Comments).
  2. Allow a device to meet this requirement by transmitting a number of bursts of shorter duration as long as the total transmission time does not exceed 2 seconds in an hour (*Id.*).
- F. ADEMCO would not support any relaxation in the restrictions designed to prevent over-occupation of the spectrum and thereby promote reliable communications (*e.g.*, devices operating pursuant to Section 15.231(a) must cease to transmit within 5 seconds of activation; peak and average power measurements conducted pursuant to Section 15.35 effectively impose a 10% duty cycle limitation and limit pulse trains to 100 milliseconds duration).
- G. **ADEMCO is extremely concerned with NTIA's opposition. There are several specific concerns:**
1. The FCC's proposal has widespread industry acceptance and has encountered virtually no opposition. ADEMCO is actively designing and developing equipment and new products that would take advantage of the proposed rule and would bring benefits to the public.
  2. There is no technical analysis in NTIA's October 15, 2002 letter that would support the notion that periodic transmissions containing data (as opposed to control information) raises serious interference issues for critical government operations.
  3. Except for the 425-435 MHz band in connection with the operation of radio frequency identification (RFID), over which ADEMCO shares NTIA's concern, the NTIA letter does not identify the frequencies in which the transmission of data attached to control signals might impair government operations.
  4. It is unclear how the activities suggested by NTIA, such as a remote weather reporting station, would have a negative impact on government operations.
    - High power continuous operation would be forbidden under the proposed rule due to duty cycle limitations in Section 15.35(b)-(c).

- Low-power operation has limited range and is not commercially useful.
  - ADEMCO and other manufacturers have a vested interest in maintaining the ground rules, which prohibit high power continuously operating devices such as walkie-talkies.
- H. NTIA's concerns regarding (a) the applicability of the proposed rule change to all frequencies above 70 MHz and (b) the elimination of any explicit prohibition on continuous transmission can be appropriately addressed by:
1. Frequency carve-outs to protect the particular radar bands that need protection.
  2. The inclusion of an explicit prohibition in Section 15.231(a) on "continuous transmission of data."

**Before the  
Federal Communications Commission  
Washington, D.C. 20554**

**RECEIVED**

In the matter of:

Review of Part 15 and other Parts of the  
Commission's Rules.

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ET Docket 01-278  
RM-9375  
RM-10051

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FEDERAL COMMUNICATIONS COMMISSION  
OFFICE OF THE SECRETARY

**COMMENTS OF THE ADEMCO GROUP**

The ADEMCO Group ("ADEMCO"), by its attorneys, and pursuant to Section 1.415 of the Commission's Rules, hereby files its comments in the above-captioned proceeding.<sup>1</sup> In the two portions of the *NPRMO* of relevance to ADEMCO, the Commission proposes to (i) permit limited data transmission by remote control devices operating above 70 MHz; and (ii) allow advanced Radio Frequency Identification ("RFID") devices to operate at 425-435 MHz. As discussed more fully below, ADEMCO supports the Commission's proposal to remove the prohibition on data transmissions by remote control devices operating above 70 MHz. However, ADEMCO does not support the proposal to permit RFID devices to operate at 425-435 MHz until further study has been completed.

**I. Introduction**

ADEMCO, a division of Honeywell International, Inc., is the world's largest manufacturer of electronic security systems, and is a pioneer in the application of radio technology to the security industry. ADEMCO holds equipment authorizations for dozens of products operating at a frequency of 345 MHz. These products generally operate pursuant to Section 15.231(a) and (b) of the Commission's Rules, which set the maximum field strength

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<sup>1</sup> See *Review of Part 15 and other Parts of the Commission's Rules, Notice of Proposed Rule Making and Order*, FCC 01-290 (rel. Oct. 15, 2001) ("*NPRMO*").

limits for devices, such as alarm transmitters, that need to transmit occasional high-priority signals for a short duration. These devices are subject to certain restrictions, set forth in Sections 15.231(a)(1) through (a)(4), which are designed to prevent over-occupation of the spectrum and thereby promote reliable communications.<sup>2</sup>

## **II. The Commission Should Remove the Prohibition on Data Transmissions Contained in Section 15.231(a).**

The transmission of data for the purpose of communication, as opposed to control, is prohibited under Section 15.231(a). A device may transmit data for a limited duration, but only under the reduced field strength limits of Section 15.231(e). ADEMCO currently manufactures several devices that transmit data under the restrictions imposed by Section 15.231(e). These devices reduce power whenever they transmit data.

ADEMCO supports the Commission's proposal to remove the prohibition on the transmission of data from Section 15.231(a), provided that the restrictions in subsections 15.231(a)(1) through (a)(4) remain unchanged.<sup>3</sup> Permitting data transmissions will offer a number of benefits to manufacturers and installers in the security industry. With only minimal additional data content, a new range of products will enable the design of improved security systems. Such products could feature comprehensive wireless displays and advanced user interfaces, better control capability, and improvements in the installation process. Other less visible improvements could provide a higher level of security to residential and business premises. ADEMCO could immediately take advantage of the higher field strength emission limits to improve the reliability and range of its current data transmission products.

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<sup>2</sup> Subsections (a)(1) and (a)(2) require a device to cease transmitting within 5 seconds of activation. Subsection (a)(3) prohibits periodic transmissions, except for infrequent status polling operations. Subsection (a)(4) permits continuous operation in emergency conditions. 47 C.F.R. § 15.231(a)(1)-(a)(4).

<sup>3</sup> See *NPRMO* at ¶¶ 15-18.

However, if the Commission removes the prohibition on data transmissions from Section 15.231(a), it should not relax the restrictions in Subsections (a)(1) through (a)(4) of Section 15.231. These timing restrictions are necessary to prevent proliferation of devices and over-occupation of the spectrum. This is important for one-way (transmit-only) fire, security, and safety-of-life applications, in which the probability of channel contention must be kept to a minimum. For the same reason, the Commission should maintain the duty cycle and timing restrictions of Section 15.231(e). In addition, the Commission should retain the peak power calculation method of Section 15.35(c). This measurement is critically important for one-way security applications, since it permits a reasonable power level for in-building communications while effectively enforcing a further duty cycle restriction at higher peak power levels.

**III. The Commission Should Not Adopt Proposed Section 15.240 Until it Determines an Appropriate Duty Cycle for RFID Devices.**

ADEMCO does not support the Commission's proposed new Section 15.240 as it currently is drafted, and urges further study before a rule is adopted.<sup>4</sup> As drafted, the rule would permit RFID devices to operate in the 425-435 MHz band with very high duty cycles (120-second transmission duration with 10 seconds between transmissions). While ADEMCO's products do not operate in this band, the frequency of 433.92 MHz within the band is commonly used in residential security systems, automotive alarms, and remote keyless entry systems. ADEMCO is concerned that the high level of spectrum occupancy that would be permitted under this proposed rule could adversely affect the reliability of existing wireless security systems operating at 433.92 MHz. Since reliable operation is the touchstone of security monitoring, the fallout from the proposed rule could injure the entire wireless security industry. Accordingly, ADEMCO urges the Commission to further study the allowable duration for continuous

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<sup>4</sup> See *NPRMO* at ¶ 27; Proposed Section 15.240.

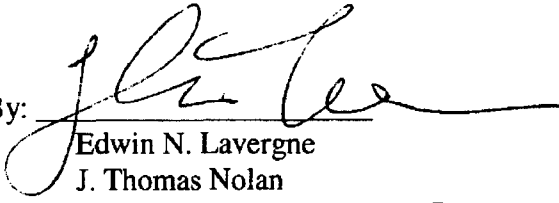
transmission systems. The proposed transmission duration appears excessive for the designated purpose, and should be quantitatively justified.

#### **IV. Conclusion**

For the foregoing reasons, the Commission should (i) permit data transmissions under Section 15.231(a) subject to the current restrictions contained in that rule; and (ii) refrain from authorizing RFID devices in the 425-435 MHz band under proposed Section 15.240 until it has determined an appropriate duty cycle that addresses the actual needs of the RFID industry.

Respectfully submitted,

THE ADEMCO GROUP

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Its attorneys

February 12, 2002



**Before the  
Federal Communications Commission  
Washington, D.C. 20554**

In the matter of:

Review of Part 15 and other Parts of the  
Commission's Rules.

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ET Docket 01-278  
RM-9375  
RM-10051

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FEDERAL COMMUNICATIONS COMMISSION  
OFFICE OF THE SECRETARY

To: The Commission

**REPLY COMMENTS OF THE ADEMCO GROUP**

The ADEMCO Group ("ADEMCO"), by its attorneys, hereby submits its reply comments in the above-captioned proceeding.<sup>1</sup> In its comments, ADEMCO expressed support for the Commission's proposal to remove the prohibition on data transmissions by remote control devices operating above 70 MHz. In addition, ADEMCO opposed the Commission's proposal to permit RFID devices to operate at 425-435 MHz until further technical study has been completed.

There is widespread support for the Commission's proposal to remove the prohibition on data transmissions by remote control devices operating pursuant to Section 15.231.<sup>2</sup> As Cisco Systems states, the "potential interference from devices authorized pursuant to Section 15.231(a) is a function of permitted field strength levels and the permitted transmission duration – not a

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<sup>1</sup> *Review of Part 15 and other Parts of the Commission's Rules, Notice of Proposed Rule Making and Order*, FCC 01-290 (rel. Oct. 15, 2001) ("NPRMO").

<sup>2</sup> *See, e.g.*, Comments of Interlogix, Inc. at 2; Comments of Johnson Controls, Inc. at 2; Comments of the Consumer Electronics Association at 2; Comments of Cisco Systems, Inc. at 5; Comments of the Information Technology Industry Council.

function of the type of information being sent.”<sup>3</sup> This change is clearly warranted and the Commission should revise its rules accordingly.<sup>4</sup>

Several parties advanced additional proposals to relax the Section 15.231 technical rules in other ways. While ADEMCO supports some of these proposals, the Commission should proceed very cautiously in this area, because the technical restrictions under Sections 15.231 and 15.35 are necessary to keep interference at acceptable levels. ADEMCO’s comments on specific proposals follow.

***Increase in transmission time per hour (Section 15.231(a)(3)).*** ADEMCO supports Interlogix’s proposals to (i) increase the permitted transmission time from one to two seconds per hour, and (ii) permit devices to meet this requirement by transmitting in a number of shorter intervals, so long as the total transmission time in any one-hour interval does not exceed two seconds.<sup>5</sup> The extra second of transmission time may enhance the utility of devices operating pursuant to Section 15.231 while not contributing significantly to their interference potential. The use of a number of shorter intervals to meet this total transmission time should reduce interference potential and allow more devices to share a given frequency band.

***Five-second rule (Section 15.231(a)(1)-(2)).*** ADEMCO urges the Commission not to alter the so-called five-second rule – the requirement that any transmission be automatically deactivated within five seconds – as Interlogix and Johnson Controls request.<sup>6</sup> The five-second

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<sup>3</sup> Comments of Cisco Systems, Inc. at 5.

<sup>4</sup> The ability of remote control devices to transmit data should logically be interpreted to include the transmission of digitally encoded voice information, appropriately limited in duration. *See* Comments of Linear Corporation at 4. However, to the extent Lifeline Systems is proposing to transmit continuous analog voice data pursuant to Section 15.231(a), any such continuous transmission would violate the timing restrictions contained in the rules and create interference concerns. *See* Comments of Lifeline Systems, Inc. at 3.

<sup>5</sup> Comments of Interlogix, Inc. at 2-3.

<sup>6</sup> *See* Comments of Interlogix, Inc. at 3; Comments of Johnson Controls, Inc. at 5.

rule may initially have been an arbitrary choice, as Johnson Controls suggests, but it has proved in practice to be a workable limitation that manufacturers abide by with little or no difficulty. The rule is effective in ensuring a quiet band, and thus promotes interference-free operation of Part 15 devices.

***Duty cycle averaging period (Section 15.35(c)).*** The Commission should not change the applicable duty cycle averaging period from 100 milliseconds to 1 second as requested by the Consumer Electronics Association.<sup>7</sup> Allowing longer transmission times would be contrary to the short-burst principle underlying the shared use of spectrum by devices operating pursuant to these rules. The Consumer Electronics Association states that the shorter averaging period fails to provide enough time to establish a communications link. However, ADEMCO's devices set up a communications link and transmit preamble and error checking information, all within the space of 10 milliseconds. Other manufacturers achieve similar results.

***Power limit exception for trained operators.*** The Commission should not permit higher power transmissions for devices operated under the control of trained operators as Enalasys requests.<sup>8</sup> Part 15 is designed to permit the operation of low-power devices. Any type of high-power operation is incompatible with existing Part 15 uses.<sup>9</sup> Enalasys has not described any specific characteristics of its equipment that would make operation by trained professionals less prone to cause interference than operation by consumers. Absent any such distinguishing characteristics, there are no grounds for an exception to the rules. If Enalysis has special needs

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<sup>7</sup> See Comments of the Consumer Electronics Association at 2.

<sup>8</sup> See Comments of Enalasys Corporation at 3-4.

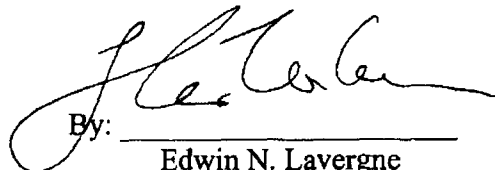
<sup>9</sup> See Exemption of Certain Radio Devices To be Used By Law Enforcement Agencies From the Commission's Equipment Authorization and Licensing Requirements, *Order*, 6 FCC Rcd 3392, 3394 n.14 (1991) (unlicensed operation of higher-powered equipment could interfere with Part 15 communications).

with respect to its equipment it may be appropriate for the Commission to consider these needs in the context of a waiver request.

***Radio-controlled toys (Section 15.231(a)).*** Finally, Section 15.231(a) currently prohibits “radio control of toys.” Mattel points out that the proposed revision to Section 15.231(a) appears to have eliminated that prohibition.<sup>10</sup> However, the Commission did not discuss this issue, and it should not eliminate the prohibition on radio control of toys. Devices authorized pursuant to Section 15.231 are deployed in security, safety, and other vital applications which could be disrupted by the intensive and repetitive uses that can be predicted to occur with radio-controlled toys. If Mattel believes that existing bands are inadequate for new radio-controlled applications, it should request a specific rule making proceeding for the purpose of identifying new spectrum. In such a proceeding, the costs and benefits of operation in various bands can be properly examined.

Respectfully submitted,

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Its attorneys

March 12, 2002

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<sup>10</sup> See Comments of Mattel, Inc. at 1; *NPRMO* at Appendix A, ¶ 18.